Sudan University of Sciences and Technology

College of Graduate Studies

Measurement of spleen Among Sudanese Adults by using computed tomography

Thesis submitted for partial fulfillment of requirements of
M.Sc degree in diagnostic radiological technology

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بسم الله الرحمن الرحيم

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كَهْف:  چ
Dedication

This research dedicated to my husband, without his support this project would not have been made possible.

And also to my family, sons and all most influential people in my life who encourage and want to be the best.
Acknowledgement

Firstly, My great thanks to Allah to let me reaching this place.

Also my great thanks to my supervisor Dr Caroline Edward Ayad for her support, inexhaustible patience and unlimited help.

My thanks also extend to my colleague Mohammed Adam who help me to complete this study.
Abstract

The spleen is the largest organ in reticuloendothelial system, the splenic size use as indicator of disease activity in a variety of disorders of the reticuloendothelial system.

The objective of this prospective study is to evaluate normal spleen measurements (length, width, CTnumber) in different Sudanese tribes using CT and correlated to patients age.

For the normal subjects the mean of splenic length, width, CTnumber were 8.75 cm(1.95---STDV), 4.29 cm(.89---STDV) and 48.69 HU(8.39---STDV) respectively.

For the diseased subjects the mean of splenic length, width, CTnumber were 12.59 cm(.63---STDV), 4.93 cm(.44---STDV) and 44.3 HU2.92---STDV) respectively.

The correlation between mean splenic dimension parameters for all subjects showed that was a linear relation between splenic length, width and CTnumber with the patient age and weight.
ملخص الدراسة

الطحال هو أكبر عضو في الجهاز الليمفاوي وحجم الطحال يستخدم كمقياس للامراض التي تصيب الجهاز الليمفاوي.

بعد تحليل النتائج للعينات السليمة وجد متوسط طول الطحال 8.75 سم ومتوسط عرض الطحال 4.29 سم ومتوسط الرقم 48.69.

اما بالنسبة للعينات المريضة وجد ان متوسط طول الطحال 12.59 سم ومتوسط عرض الطحال 4.93 سم ومتوسط الرقم 44.3.

العلاقة بين متوسط قياسات الطحال لكل العينات اظهرت انه يوجد علاقة خطية بين طول, عرض الرقم وعمر ووزن العينات المأخوذة.
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